



MATERIAL SAFETY DATA SHEET
(EUROPEAN)

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1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

IDENTIFICATION OF THE SUBSTANCE

TRADE NAMES: ***RIGIDIZER***

DENOMINATION : Inorganic Coating

Inorganic Liquid hardener

IDENTIFICATION OF THE MANUFACTURER AND SALES CONTACTS

Germany

Unifrax GmbH
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SALES CONTACTS ONLY

SPAIN

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Occupational Hygiene and CARE: Tel: + 44 (0) 1744 887603. Fax: + 44 (0) 1744 886173



2. COMPOSITION / INFORMATION OF INGREDIENTS

| COMPONENT | EINECS NUMBER | CAS NUMBER | SYMBOL | R PHRASES |
|------------------|---------------|------------|--------|-----------|
| Amorphous Silica | 231-545-4 | 7631-86-9 | None | None |
| Ethylene Glycol | 203-473-3 | 107-21-1 | Xn | R22 |

COMPOSITION

Chemical composition of **Rigidizer Blue** : 20-35% SiO₂ and <10 % Ethylene glycol, **Rigidizer Pink** : 30-35% SiO₂

DESCRIPTION

Rigidizer products are inorganic liquid hardeners able to withstand continuous service temperatures of upto 1260°C.

Use of the product

This coating is generally used to increase the durability and surface erosion resistance of Fiberfrax blanket and board products. This product can be used up to temperatures of 1260°C in industrial applications. Should not be sold directly to the general public, restricted to professional users.

3. HAZARDS IDENTIFICATION

Harmful if swallowed based on the freeze stabiliser, ethylene glycol

IRRITANT EFFECTS

Slight to moderate chemical irritation to skin, eyes and upper respiratory system may result from repeated contact with this product due to the alkalinity of the product.

4. FIRST AID MEASURES

SKIN

In case of skin irritation rinse affected areas with soap and water. Obtain medical attention if symptoms develop.

EYES

In case of eye contact flush abundantly with water; have eye wash facilities to be kept close at hand. In all cases consult an ophthalmologist, even if no lesions are apparent.

INGESTION

Wash out mouth and give ½ pint of warm water to drink. Do not induce vomiting. Obtain medical attention without delay.

5. FIRE-FIGHTING MEASURES

Non combustible products. Packaging and surrounding materials may be combustible.

Use extinguishing agent suitable for surrounding combustible materials



6. ACCIDENTAL RELEASE MEASURES

Wear goggles and gloves to avoid contact with eyes or skin. Contain spillage, absorb in earth or sand, and shovel into suitable containers. See section 13 for elimination of waste materials.

7. HANDLING AND STORAGE

HANDLING

Wear suitable goggles, gloves and protective clothing when handling

STORAGE

Store at room temperature above 5°C and less than 50°C. Protect from freezing.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Care must be taken during preparation and use of this product due to the alkalinity:

ENGINEERING CONTROLS

As this is a wet product dust would not be created in normal use.

PERSONAL PROTECTIVE EQUIPMENT

SKIN PROTECTION

Wear impermeable plastic or rubber gloves and suitable work clothes. Wash off splashes to skin immediately.

EYE PROTECTION

Wear goggles or safety glasses with side shields. Keep eye wash facilities close at hand.

RESPIRATORY PROTECTION

Exposure to airborne dust concentrations, would be unlikely as supplied and when used as intended.

INFORMATION AND TRAINING OF WORKERS

Smoking, eating and drinking at the workplace should be prohibited ;

The requirements for protective equipment and clothing.

The good working practices to exposure ;

The proper use of protective equipment.

ENVIRONMENTAL EXPOSURE CONTROLS

Refer to local, national or European applicable environmental standards for release to air, water and soil.

For waste, refer to section 13

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|----------------|--------------|----------------------|----------|
| Physical State | liquid | Melting point | N.A. |
| Boiling point | 100°C | Solubility in water | Miscible |
| Appearance | Blue or pink | Explosive properties | N.A |



pH

10-10.5

Odour

None

10. STABILITY AND REACTIVITY

STABILITY

This product is stable at ambient temperature. Material will harden and dry when exposed to air or heat sources. Volatile organic compounds from the freeze stabiliser will be evolved with the water vapour on heating.

MATERIALS TO AVOID

None

11. TOXICOLOGICAL INFORMATION

HUMAN DATA

IRRITANT PROPERTIES

The alkalinity of this product could cause a chemical irritation to the skin and eyes if prolonged and repeated contact.

RESPIRATORY EFFECTS

None expected in the normal use of the product, when the product has dried and during removal situations there is the potential for dust generation, which can affect pre-existing respiratory conditions. The amorphous silica used to produce this product is of low acute toxicity, it is not classed as carcinogenic or genotoxic.

GASTROINTESTINAL EFFECTS

Ethylene glycol as used in this product as a freeze stabiliser is harmful when ingested and in its pure state it has an estimated lethal dosage for an average person of 100ml. As this product does contain a small percentage of (<10%) ethylene glycol ingestion should be avoided.

12. ECOLOGICAL INFORMATION

This material must not be disposed into drains or water courses.

13. DISPOSAL CONSIDERATIONS

Not classed as a special waste within the UK as contains <25% ethylene glycol and can be disposed of at a normal landfill, which has been licensed for this purpose. Please refer to the European list (Decision no 2000/532/CE as modified) to identify your appropriate waste number, and ensure national and or regional regulation are complied with. Taking into account any possible contamination during use, expert guidance should be sought.

14. TRANSPORT INFORMATION

Not classified as dangerous goods under relevant international transport regulations (ADR, RID, IATA, IMDG Refer Section 16 "Definitions").

15. REGULATORY INFORMATION

Ethylene glycol is classified "harmful" under the rules of the EEC "Dangerous Substances Directives" 67/548/EEC as amended by 92/32/EEC.



Risk Phrase R22
Safety Phrases S24/25
Symbol Xn

Labelling is only required where the substance contains >25% ethylene glycol.

This applies for sales in the European Union

PROTECTION OF WORKERS

Shall be in accordance with several European Directives as amended and their implementations by the Member States:

Council Directive 89/391/EEC dated 12 June 1989 "on the introduction of measures to encourage improvement in the safety and health of workers at work (OJEC (Official Journal of the European Community) L 183 of 29 June 1989,p.1).

Council Directive 98/24/EC dated 7 April 1997 " on the protection of workers from the risks related to chemical agents at work" (OJEC L 131 of 5 May 1998,p.11).

Member states are in charge of implementing European directives into their own national regulation within a period of time normally given in the directive. Member States may impose more stringent requirements. Please always refer to national regulations.

16. OTHER INFORMATION

USEFUL REFERENCES (the directives which are cited must be considered in their amended version)

Council Directive 89/391/EEC dated 12 June 1989 "on the introduction of measures to encourage improvements in the safety and health of workers at work" (*OJEC L 183 of 29 June 1989,p.1*)

Council Directive 67/548/EEC on the "approximation of the laws, regulations and administrative provision relating to the classification, packaging and labelling of dangerous substances as modified and adapted to the technical progress" (*OJEC L 196 of 16 August 1967,p.1 and its modifications and adaptations to technical progress*).

Official journal of the European Communities, 26/07/90

Council Directive 98/24/EC of 7th April 1998 "on the protection of the health and safety of workers from risks related to chemical agents at work" (OJEC L131 of 5th May 1998, P.11)

Circulaire DRT No 954 du 12/01/95- France

Circolare 15 marzo 2000, n.4 – Italy

DEFINITIONS

ADR – Transport by road, council directive 94/55/EC

IMDG – Regulations relating to transport by sea

RID – Transport by rail, Council Directive 96/49/EC

ICAO/IATA - Regulations relating to transport by air



NOTE

The directives and subsequent regulations detailed in this Material Safety Data Sheet are only applicable to the European Union (EU) Countries and not to countries outside of the EU.

Websites

The European Ceramic Fibres Industry Association (ECFIA): 3, Rue du Colonel Moll, 75017 Paris
Tel. +33 (0)1 44 05 54 84 - Fax +33 (0)1 44 05 54 94- www.ecfia.org

Or to Deutsche Keramikfaser-Gesellschaft e.V. web site: www.dkfg.de

NOTICE:

The information presented here in is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorisation given or implied to practice any patented invention without a licence. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.